

# Work Order ID 73254

Monday, August 29, 2011 10:54:49 AM

Page 1

Item ID: D407-667-105TRN

Revision ID:

Item Name: Crosstube Turning Detail

Start Date: 8/29/2011 Start Qty: 1.00

Required Date: 9/9/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D407-667-145

Rev C

100

0.00



Mori Seiki

Mori-Seiki CNC Lathe Large

MORI SEIKI CNC LATHE LARGE

Memo

0.00

1-Fill tube with sand & install plugs DT8673 on both ends as per Folio FA249

2-Turn first side as per Folio FA249

3-Blend transition lines only, \*\*do not sand whole tube\*\*:

\*Use mill bastard file, brush file repeatedly with file card.

\*Do not use sandpaper coarser than 320 grit.

110

0.00



QC

Quality Control

QC1- Inspect dimensions to dimension sheet

Memo

0.00

1 Ø  
MML 11/08/30

1 Ø  
MML 11/08/30

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 73254**

Monday, August 29, 2011 10:54:49 AM

Page 2

Item ID: D407-667-105TRN

Accept

Setup Start

Revision ID:

Stop

Item Name: Crosstube Turning Detail

Start Date: 8/29/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start


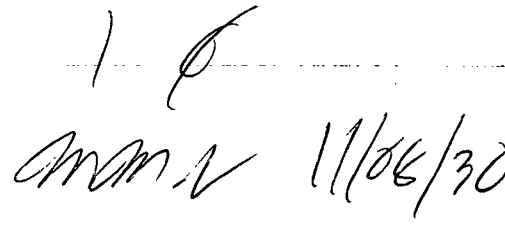

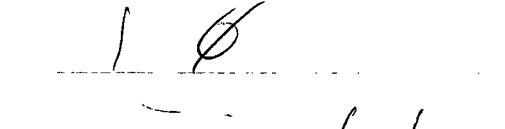
QC:

Date:

SPC (Y/N):

Date:

Stop

| Sequence ID/<br>Work Center ID   | Operation<br>Description  | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp  |
|--|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|---|
| 120<br><br>Mori Seiki | MORI SEIKI CNC LATHE LARGE  | 0.00                 |         |        |              |               |               |                  |   |
| Mori Seiki CNC Lathe Large   | <b>Memo</b><br>1-Turn second side as per Folio FA249<br><br>2-Blend transition lines only, **do not sand whole tube**:<br>*Use mill bastard file, brush file repeatedly with file card.<br>*Do not use sandpaper coarser than 320 grit.<br><br>3-Remove sand and plugs<br><br>4-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-145<br>inside of Cuff(Do not engrave on outside of tube) | 0.00                 |         |        |              |               |               |                  |    |
| 130<br><br>QC       | QC1- Inspect dimensions to dimension sheet  | 0.00                 |         |        |              |               |               |                  |   |
| Quality Control  | <b>Memo</b>   | 0.00                 |         |        |              |               |               |                  |  |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
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| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

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Page 3

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Required Date: 9/9/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

140

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

DP

11-8-31

150

Crosstubes Chemical Conversion

0.00



HandFXtube

Memo

0.00

Hand Finishing Crosstubes

11-8-31

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

DP

11-9-1

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 73254

Monday, August 29, 2011 10:54:49 AM

Page 4

Item ID: D407-667-105TRN

Accept

Revision ID:

Item Name: Crosstube Turning Detail

Start Date: 8/29/2011 Start Qty: 1.00

Required Date: 9/9/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

0.00



Packaging

Packaging

Memo

0.00

Packaging

Identify and stock in Kanban rack Location:

46



11-9-1

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/9/11  
ME 11-09-02

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

Monday, August 29, 2011 10:54:47 AM

Page 1

Work Order ID: 73254



Parent Item: D407-667-105TRN



Parent Item Name: Crosstube Turning Detail

Start Date: 8/29/2011

Required Date: 9/9/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: a 08.02.28 new issue EC  
IPP Rev B 08.04.02 Removed polish EC verified by: DD

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

D6010-115

Manufactured

No

110

Each

27.0000

1

1



Crosstube Material

Location

Loc Qty

Loc Code

LG

27

38343

27

1 AMM.L 11/08/29

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

|  |                                  |
|--|----------------------------------|
| <b>DART AEROSPACE LTD</b>                  | <b>Work Order:</b> 73254         |
| <b>Description:</b> Crosstube Assembly     | <b>Part Number:</b> D407-667-145 |
| <b>Inspection Dwg:</b> D407-667-145 Rev: C | <b>Page 1 of 1</b>               |

### FIRST ARTICLE INSPECTION CHECKLIST

| Inspection Sheet<br>Drawing Dimension | Tolerance | Actual<br>Dimension | Accept  | Reject | Method of<br>Inspection | Comments |
|---------------------------------------|-----------|---------------------|---------|--------|-------------------------|----------|
| SIDE A                                | 2.240     | +0.005/-0.000       | 2.243   | /      | vern                    | CWC-08   |
|                                       | 1.865     | +0.005/-0.000       | 1.864   | /      | "                       |          |
|                                       | 1.878     | +0.005/-0.000       | 1.881   | /      | "                       |          |
|                                       | 1.970     | +0.005/-0.000       | 1.973   | /      | "                       |          |
|                                       | 2.030     | +0.005/-0.000       | 2.031   | /      | "                       |          |
|                                       | 2.165     | +0.005/-0.000       | 2.170   | /      | "                       |          |
|                                       |           |                     |         |        |                         |          |
|                                       | 0.125     | +/-0.010            | .125    | /      | vern                    | CWC-08   |
|                                       | R0.063    | +/-0.010            | .063    | /      | RG                      |          |
|                                       | R0.500    | +/-0.010            | .500    | /      | "                       |          |
| SIDE B                                | R0.063    | +/-0.010            | .063    | /      | "                       |          |
|                                       | 4.438     | +/-0.030            | 4.418   | /      | vern                    | CWC-08   |
|                                       |           |                     |         |        |                         |          |
|                                       | 2.240     | +0.005/-0.000       | 2.242   | /      | vern                    | CWC-08   |
|                                       | 1.865     | +0.005/-0.000       | 1.870   | /      | "                       |          |
|                                       | 1.878     | +0.005/-0.000       | 1.883   | /      | "                       |          |
|                                       | 1.970     | +0.005/-0.000       | 1.973   | /      | "                       |          |
|                                       | 2.030     | +0.005/-0.000       | 2.033   | /      | "                       |          |
|                                       | 2.165     | +0.005/-0.000       | 2.170   | /      | "                       |          |
|                                       |           |                     |         |        |                         |          |
|                                       | 0.125     | +/-0.010            | .125    | /      | vern                    | CWC-08   |
|                                       | R0.063    | +/-0.010            | .063    | /      | RG                      |          |
|                                       | R0.500    | +/-0.010            | .500    | /      | "                       |          |
|                                       | R0.063    | +/-0.010            | .063    | /      | "                       |          |
|                                       | 4.438     | +/-0.030            | 4.418   | /      | vern                    | CWC-08   |
|                                       | 113.20    | +/-0.020            | 113.187 | /      | tape                    | mmL-02   |

|                           |                                |  |
|---------------------------|--------------------------------|--|
| <b>Measured by:</b> JMM.L | <b>Audited by:</b> [Signature] | <b>Preliminary Approval:</b> [Signature] |
| <b>Date:</b> 11/08/29     | <b>Date:</b> 11-8-31           | <b>Date:</b>                             |

| Rev | Date     | Change                                | Revised by | Approved    |
|-----|----------|---------------------------------------|------------|-------------|
| A   | 04.04.21 | New Issue (P/O D407-667-105)          | KJ/RF      |             |
| B   | 06.03.09 | Dwg Rev updated                       | KJ/JLM     |             |
| C   | 09.06.11 | Dwg Rev updated                       | KJ         |             |
| D   | 11.06.21 | Tolerance revised for 4.438 dimension | KJ         | [Signature] |



| Item | Qty<br>-145 | Part Number    | Description  |
|------|-------------|----------------|--|
| 1    | X           | D407-667-145   | CROSSTUBE ASSEMBLY (407 HIGH FWD)  |
| 2    | 1           | D6010-115      | CROSSTUBE  |
| 3    | 2           | D2873-043      | NUT PLATE  |
| 4    | 2           | D2873-045      | NUT PLATE  |
| 5    | 2           | D2891-1        | SUPPORT  |
| 6    | 4           | D3595-063-395  | RUBBER CUSHION   |
| 7    | 4           | MS21920-20     | CLAMP (OR MS21920-21)  |
| 8    | 14          | MS20601AD4W10  | RIVET (OR NAS9302B-4-10)   |
| 9    | A/R         | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023<br>ADHESIVE (TEXTRON/BELL SPEC. 299-<br>947-100, TYPE II, CLASS 2 ADHESIVE) |

# **GENERAL NOTES:**

- 1) MATERIAL: MANUFACTURED FROM D6010-115  
FINISHED LENGTH = 113.20±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-145" AND BATCH NUMBER ON  
INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 17.8 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,  
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE  
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER  
QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE  
THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS  
ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE  
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS  
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT  
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN.-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN  
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

**DEO ATTACHED**

ECW #11-615  
11.07.26

**UNDER REVIEW**

**RELEASED**  
08/11/12

|            |   |    |          |
|------------|---|----|----------|
| C          | REVISE GENERAL NOTES/PART LIST (ZN D7-1);<br>REORGANIZED VIEWS AND REFORMATTED DRAWING<br>TO CURRENT STANDARDS.<br>D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2);<br>REMOVED REF. 7 ADD TOLERANCES (ZN C6-3, C4-3,<br>D2-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210;<br>MOVED TURNING DETAIL & UPDATED TOLERANCE TO<br>SHEET 4. | RF | 08.11.06 |
| B          | ADD HOLES AND NUT PLATES FOR COMPATABILITY<br>WITH BHT/AA SKUDTUBES   | PH | 05.07.26 |
| A          | NEW ISSUE   | CP | 02.05.08 |
| REV.       | DESCRIPTION   | BY | DATE     |
| DESIGN     |   |    |          |
| DRAWN      | RF  |    |          |
| CHECKED    |   |    |          |
| MFG. APPR. |   |    |          |
| APPROVED   |   |    |          |
| DE APPR.   |   |    |          |
| DATE       | 08.11.06  |    |          |

|   |                        |
|---|------------------------|
| <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA  |                        |
| DRAWING NO.<br>D407-667-145   | REV. C<br>SHEET 1 OF 4 |
| TITLE<br>CROSSTUBE ASS'Y (407 HIGH FWD)   | SCALE<br>NTS           |
| COPYRIGHT © 2002 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE LTD. |                        |

WLO  
73254

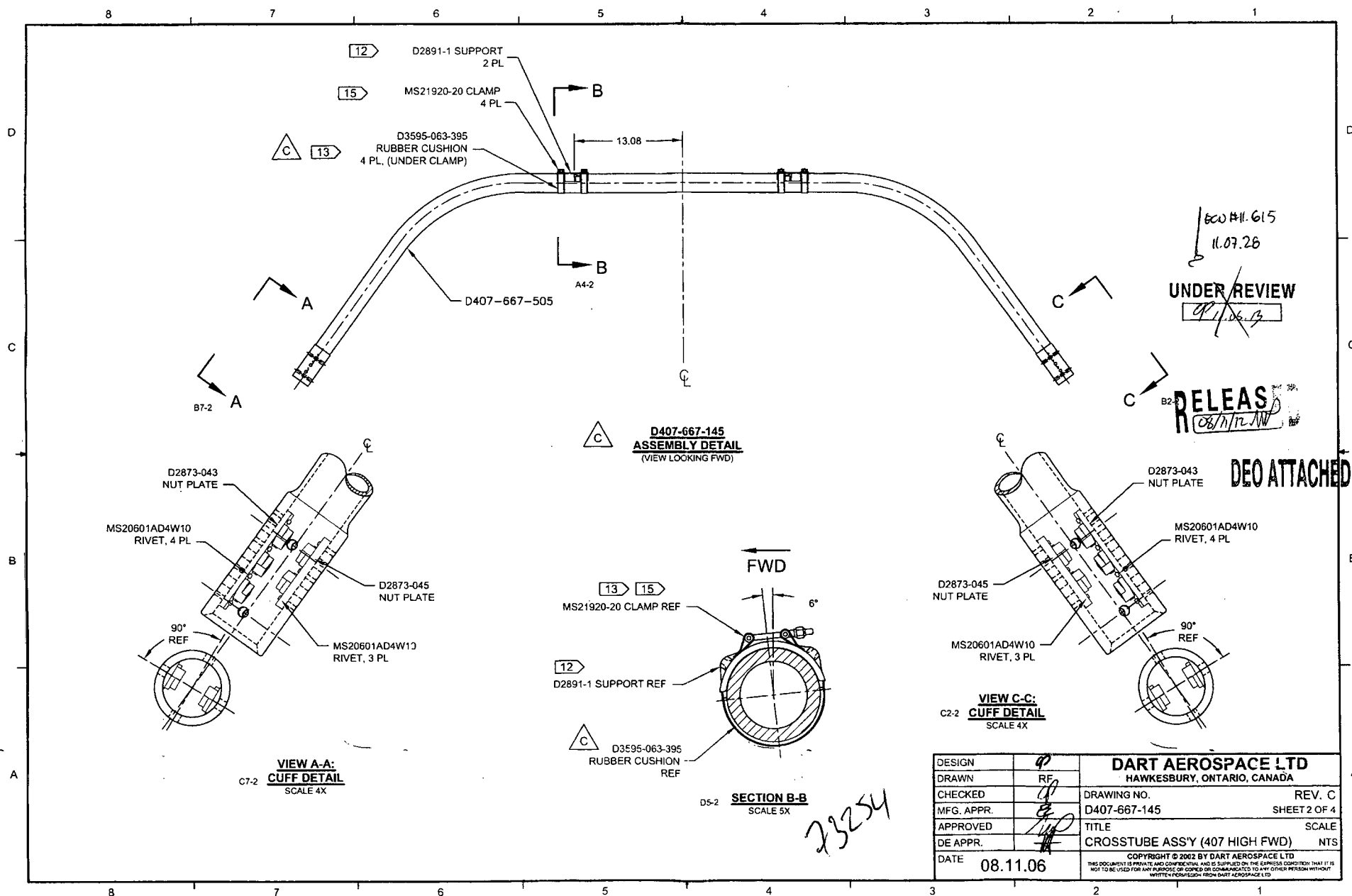
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
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|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

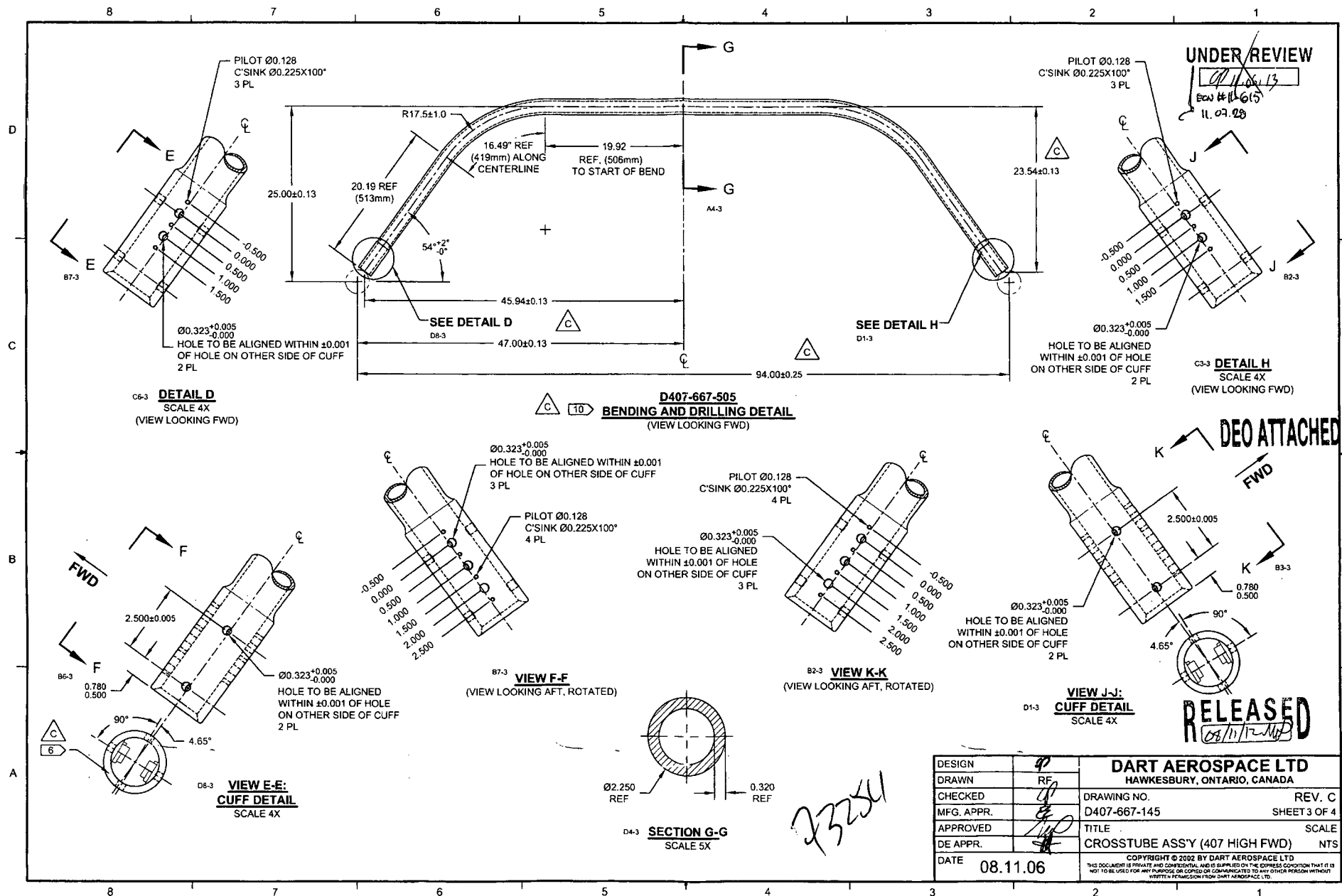
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



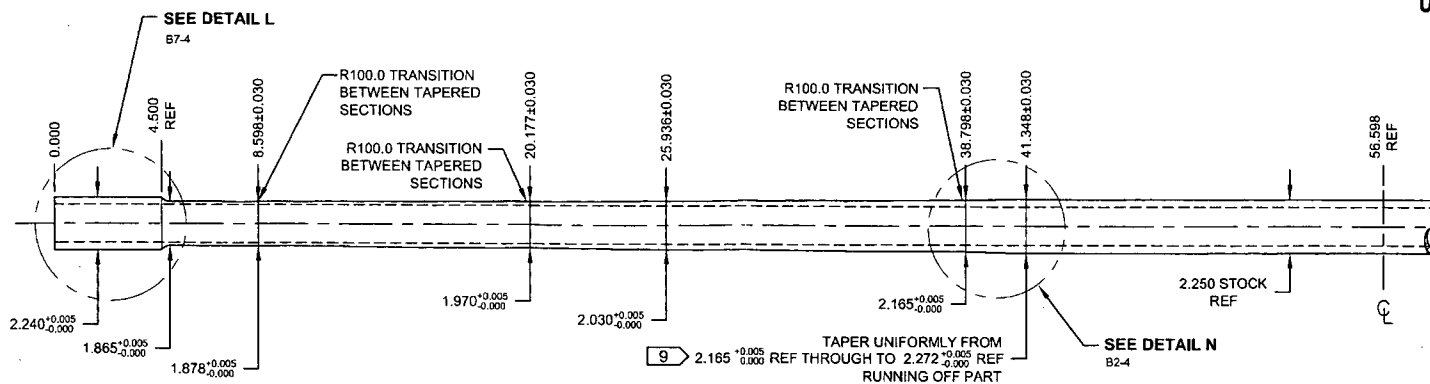


UNDER REVIEW

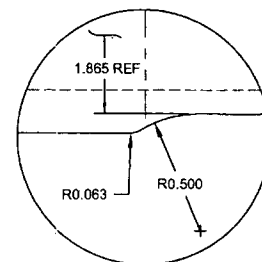
CP 11.08.13

BAW 11.615

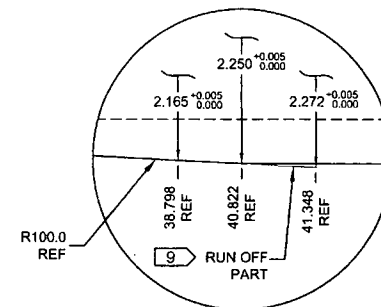
11.07.26



**C TURNING DETAIL**



**DETAIL M:  
CUFF TRANSITION**  
NOT TO SCALE



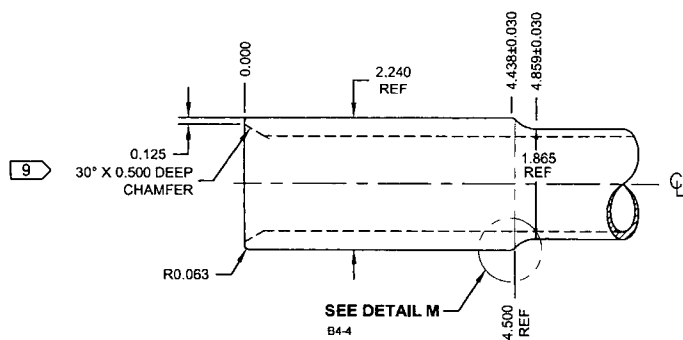
**DETAIL N:  
TAPER RUN-OFF**  
NOT TO SCALE

DEO ATTACHED

RELEASED

08/11/13

**DETAIL L:  
CROSSTUBE CUFF**  
NOT TO SCALE



|  |          |  |              |
|--|----------|--|--------------|
| DESIGN   | 73254    | DART AEROSPACE LTD                     |              |
| DRAWN  | RF       | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED  | RF       | DRAWING NO.                            | REV. C       |
| MFG. APPR.   | RF       | D407-667-145                           | SHEET 4 OF 4 |
| APPROVED   | RF       | TITLE                                  | SCALE        |
| DE APPR.   | RF       | CROSSTUBE ASS'Y (407 HIGH FWD)         | NTS          |
| DATE   | 08.11.06 | COPYRIGHT © 2002 BY DART AEROSPACE LTD |              |
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|                             |   |                         |   |  |                                |                           |              |
|-----------------------------|---|-------------------------|---|--|--------------------------------|---------------------------|--------------|
| DRAWING NO.<br>D407-667-145 | TITLE<br>CROSSTUBE ASS'Y (407 HIGH FWD) | REV. C                  | DART AEROSPACE LTD<br>ENGINEERING ORDER |  | D.E.O. NO.<br>D407-667-145-C-1 | SHEET NO.<br>SHEET 1 OF 1 | SCALE<br>NTS |
| DRAWN<br><i>qp</i>          | CHECKED<br><i>ASS</i>                   | MFG. APPR.<br><i>IB</i> | APPROVED<br><i>MD</i>                   |  | DE APPR.<br><i>MD</i>          |                           |              |
| DATE<br>11.07.15            | DATE<br>11.07.22                        | DATE<br>11.07.22        | DATE<br>11/07/22                        |  | DATE<br>11.07.21               |                           |              |

**PURPOSE:**

REPLACE MAGNOBOND WITH PROSEAL.

**CHANGE:**

IS:

| Item | Qty<br>-145 | Part Number     | Description                   |
|------|-------------|-----------------|-------------------------------|
| 9    | A/R         | PROSEAL 890 B-2 | SEALANT, AMS-S-8802 CLASS B-2 |

WAS:

|   |     |                |   |
|---|-----|----------------|---|
| 9 | A/R | MAGNOBOND 6398 | ROCKWELL SPECIFICATION RBO-120-023<br>ADHESIVE (TEXTRON/BELL SPEC. 299-947-100,<br>TYPE II, CLASS 2 ADHESIVE) |
|---|-----|----------------|---|

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) TO INSTALL D2891-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. **PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.**

WAS:

- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

**RELEASED**  
2011-07-28  
*MD*

*73254*

